What is claimed is:

1. A preparation method for biochips, comprising:

(a) providing a substrate;

(b) applying a micro-injecting process to spray a hydrophobic material on the substrate for forming a hydrophobic region thereon, and a plurality of partitions being defined on the hydrophobic *region; and*

(c) immobilizing a probe on each partition by the micro-injecting process.

2. The preparation method as claimed in claim 1, wherein the hydrophobic material is selected from a group consisting of Teflon, polyimide, fluoro-compound, and *silicon compound*.

3. The preparation method as claimed in claim 1, wherein the micro-injecting process is performed by a micro-injector to spray vertically, horizontally, unidirectionally or bidirectioanlly.

4. The preparation method as claimed in claim 3, wherein the micro-injector is selected from a group consisting of a thermal bubble micro-injector and a piezo micro-injector.

5. The preparation method as claimed in claim 1, wherein the substrate is a hydrophobic substrate and is selected from a group consisting of glass, silica, quartz, mica, ceramics, and metals.

6. The preparation method as claimed in claim 5, further comprising a step (d), after the step (b), for forming a hydrophilic functional group on each partition.

7. The preparation method as claimed in claim 6, wherein the hydrophilic functional group is selected from a group consisting of $-NH_2$, -COOH, -SH, epoxide, aldehyde, and streptavidin.

8. The preparation method as claimed in claim 1, wherein the substrate is a hydrophilic substrate selected from a group consisting of polystyrene, polyester, polycarbonate, polyvinylchloride, polyethylene, polypropylene, polysulfone, polyurethane, and polymethylmethacrylate (PMMA).

9. The preparation method as claimed in claim 8, further comprising:

a step (e), after the step (a), hydrophobically treating the substrate; and

a step (f), after the step (b), hydrophilically treating each partition to form a hydrophilic functional group thereto.

10. The preparation method as claimed in claim 9, wherein the hydrophilic functional group is selected from a group consisting of $-NH_2$, -COOH, -SH, epoxide, aldehyde, and streptavidin.

11. The preparation method as claimed in claim 1, wherein the partitions are selected from a group consisting of square, circular, and geometric figures.

12. The preparation method as claimed in claim 1, wherein the probe is selected from a group consisting of DNA, RNA, nucleotides, oligonucleotides, protein, antibodies, and peptides.

13. The preparation method as claimed in claim 1, wherein the probe is immobilized to each partition by a binding process.

14. The preparation method as claimed in claim 13, wherein the binding process is selected from a group consisting of adsorption, covalent binding, encapsulation, cross-linking, and entrapment.

15. The preparation method as claimed in claim 1, wherein the micro injecting process is performed by a thermal micro-injector, and the micro-injector comprises:

a chamber for storing a fluid;

a micro injecting process pore disposed on the chamber for ejecting the fluid;

a first heater and a second heater arranged on two sides of the micro injecting process pore respectively;

when the chamber is full of the fluid, the first heater produces a first bubble and the second heater produces a second bubble, and the two bubbles spray out a drop of the fluid.

16. The preparation method as claimed in claim 15, wherein the first and the second heaters are triggered by one signal.

17. The preparation method as claimed in claim 15, wherein the first bubble acts as a valve to limit an ejection of the fluid in the chamber.

18. A biochip, comprising:

a substrate,

a plurality of hydrophobic regions formed on the substrate by micro-injecting a hydrophobic material on the substrate;

a plurality of hydrophilic partitions separated by the hydrophobic regions disposed on the substrate; and

a probe immobilized on each partition by a micro-injecting process.

19. The biochip as claimed in claim 18, wherein the substrate is a hydrophobic substrate selected from a group consisting of glass, silicon, quartz, mica, ceramics, and metals.

20. The biochip as claimed in claim 19, wherein the surface of the hydrophobic substrate contains a hydrophilic functional group after a hydrophilic treating.

21. The biochip as claimed in claim 20, wherein the hydrophilic functional group is selected from a group

consisting of $-NH_2$, -COOH, -SH, epoxide, aldehyde, and streptavidin.

22. The biochip as claimed in claim 21, wherein the substrate is a hydrophilic substrate selected from a group consisting of polystyrene, polyester, polycarbonate, polyvinylchloride, polyethylene, polypropylene, polysulfone, polyurethane, and polymethylmethacrylate (PMMA).

23. The biochip as claimed in claim 20, wherein the substrate becomes hydrophobically because of a hydrophobic treatment performed on the substrate before the plurality of the partitions are formed.

24. The biochip as claimed in claim 23, wherein a hydrophilic treatment is performed on the partitions to add a hydrophilic functional group thereto after the partitions are formed.

25. The biochip as claimed in claim 24, wherein the hydrophilic functional group is selected from a group consisting of $-NH_2$, -COOH, -SH, epoxide, aldehyde, and streptavidin.

26. The biochip as claimed in claim 18, wherein the hydrophobic material is selected from a group consisting of Teflon, polyimide, compounds containing fluorides and silicides.

27. The biochip as claimed in claim 18, wherein the probe is selected from a group consisting of DNA, RNA,

nucleotides, oligonucleotides, protein, antibodies, and peptides.

28. The biochip as claimed in claim 18, wherein the probe is immobilized on the partition by a process selected from a group consisting of adsorption, covalent binding, encapsulation, cross-linking, and entrapment.